

**Work Order ID 72160**

Tuesday, July 19, 2011 1:49:54 PM



Page 1

Item ID: D3793-3

Accept



Setup Start



Revision ID:

Item Name: Wearshoe

Stop



Start Date: 7/19/2011 Start Qty: 10.00



Cust Item ID:

Required Date: 7/25/2011 Req'd Qty: 10.00



Customer:

Reference:

Approvals:

Process Plan: HDate: 11-07-19

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

Draw Nbr

Revision Nbr

D3793

Rev A

100



Waterjet

FLOW WATER JET

0.00

Memo

0.00

FLOW CNC Waterjet

304 . 040

1-Cut as per Dwg D3793

Dwg Rev: AProg Rev: A

2-Deburr if necessary

B11-8-9

(12)

110



QC

QC2- Inspect parts off machine FAI/FAIB

0.00

Memo

0.00

Quality Control

B11-8-9

120



QC

QC8- Inspect parts - second check

0.00

Memo

0.00

Quality Control

Sulosio

(12)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 72160**

Tuesday, July 19, 2011 1:49:54 PM



Page 2

Item ID: D3793-3

Accept



Setup Start



Revision ID:

Stop



Item Name: Wearshoe

Start Date: 7/19/2011 Start Qty: 10.00



Cust Item ID:

Required Date: 7/25/2011 Req'd Qty: 10.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

130



Brake NC

NC BRAKE

0.00

Memo

0.00

1-Deburr if necessary  
2-Form on Brake as per Dwg D3793 using Jigs

12

B 4.08.12

Brake NC

140



QC

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

Sulosa

12

Quality Control

150



Powdercoat

Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3

0.00

Memo

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

7:45

320 OF

8:15

12x 11/08/15

M117338

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 72160**

Tuesday, July 19, 2011 1:49:54 PM

Page 3

Item ID: D3793-3

Accept

Revision ID:

Item Name: Wearshoe

Start Date: 7/19/2011 Start Qty: 10.00

Required Date: 7/25/2011 Req'd Qty: 10.00

Reference:

Cust Item ID:

Customer:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

160

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

12 0 M 11/08/15

170

Identify as per dwg & Stock Location: F-P7 0.00

Packaging

Memo

0.00

Packaging

12 x 4 M 11/08/15

180

QC21- Final Inspection - Work Order Release 0.00



QC

Memo

0.00

Quality Control

11/8/15

MF  
11-08-15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Tuesday, July 19, 2011 1:50:00 PM

Page 1

Work Order ID: 72160

Parent Item: D3793-3

Parent Item Name: Wearshoe



Start Date: 7/19/2011

Required Date: 7/25/2011

Start Qty: 10.00

Required Qty: 10.00

Comments: IPP Rev:A 08-05-13 new issue DD verified by:EC  
IPP Rev:B 08-05-23 revA as per dwg DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M304S20GA

Purchased

No

100

sf

110.0630

1.2828

13.50316

15-5



B11-8-9

304/316 .040 Sheet

Location

Loc Qty

Loc Code

MAT020

110.063

116623

0.2

117550

9.363

117933

100.5

118400

118400

12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



DART AEROSPACE LTD		Work Order:	72160
Description: Wearshoe		Part Number:	D3793-3
Inspection Dwg: D3793 Rev: A		Page 1 of 1	

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.188	+0.005/-0.001	.192	x		V B62	
0.300 x 0.300	+/-0.010	306 x 309	2		V	
1.885	+/-0.010	1.888	2		V	
4.389	+/-0.010	4.383	2		T B01	
6.547	+/-0.010	6.540	2		T	
6.00	+/-0.030	6.00	2		T	
6.75	+/-0.030	6.75	2		T	
2.000	+/-0.010	2.000	2		T	
4.750	+/-0.010	4.750	2		T	
9.500	+/-0.010	9.500	2		T	
14.250	+/-0.010	14.250	2		T	
17.750	+/-0.010	17.750	2		T	
26.735	+/-0.010	26.735	2		T	
Ø0.531 x 0.780	+0.008/-0.001	.531 x .784	2		V	

Measured by: RB	Audited by: J	Prototype Approval:	N/A
Date: 11-8-9	Date: 11/02/10	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	08.05.30	New Issue	KJ/DD	

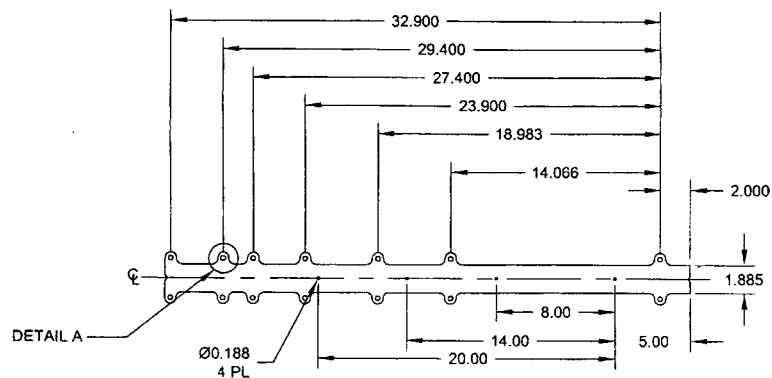
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

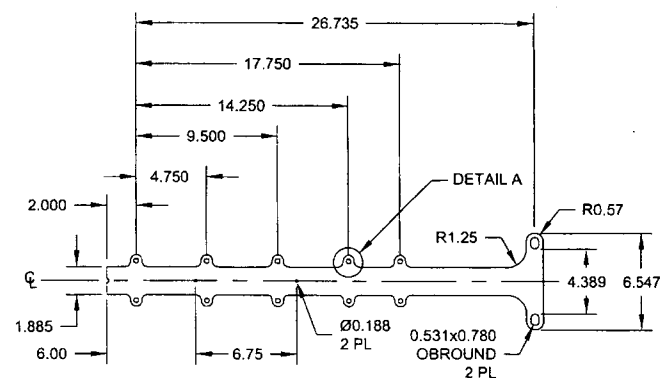
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

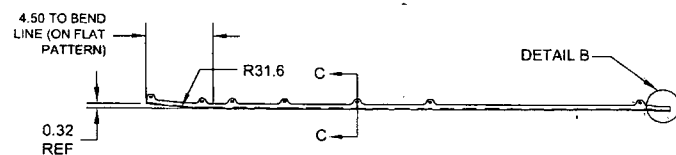
**NOTE:** Date & initial all entries



**D3793-1F FLAT PATTERN**



**D3793-3F FLAT PATTERN**



**D3793-1 BEND DETAIL**  
(MAKE FROM D3793-1F)



**D3793-3 BEND DETAIL**  
(MAKE FROM D3793-3F)

**RELEASED**  
08.05.14

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT

WITHOUT NOTICE  
WORK ORDER

NO. 72160

11-07-19

**NOTES:**

- 1) MATERIAL: AISI 304/316 SS SHEET PER AMS 5513 OR AMS 5524, 20 GAUGE (0.038 THICK)  
(REF DART SPEC M304S20GA)
- 2) FINISH: POWDER COAT GREY SANDTEX (4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "DXXX-X" ON INSIDE SURFACE USING FINE POINT PERMANENT INK MARKER OR LABEL AFTER FINISH
- 7) WEIGHT: D3793-1 - 0.72 LBS, D3793-3 - 0.66 LBS

A	NEW ISSUE		PH	08.05.14
REV.		DESCRIPTION	BY	DATE
DESIGN	PH	<b>DART AEROSPACE USA, INC</b> PORT HADLOCK, WA		
DRAWN	PH			
CHECKED			DRAWING NO.	REV. A
MFG. APPR.	<del>PH</del>		D3793	SHEET 1 OF 2
APPROVED	<del>PH</del>		TITLE	SCALE
DE APPR.	<del>PH</del>	WEARSHOE	NT	
DATE	08.05.14	COPYRIGHT © 2008 BY DART AEROSPACE USA, INC		
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE REPRODUCED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.				

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

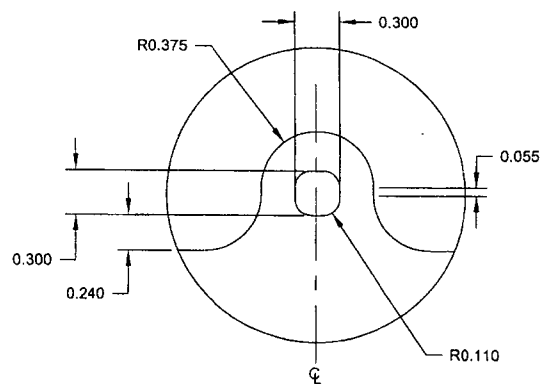
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

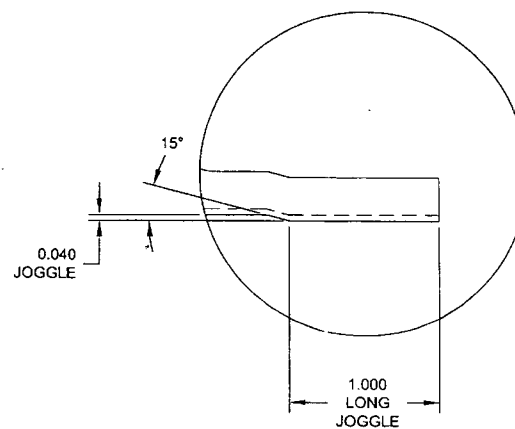
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

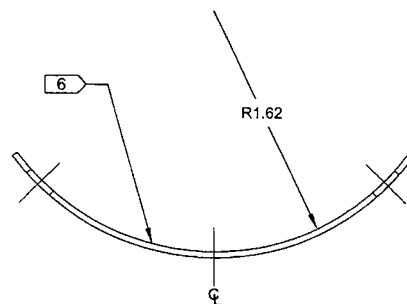
8 7 6 5 4 3 2 1



**DETAIL A**  
SCALE 10X



**DETAIL B**  
SCALE 10X



**SECTION C-C**  
SCALE 10X

u/o 72140

**RELEASED**  
08-05-23/172

DESIGN	PH	<b>DART AEROSPACE USA, INC</b>	
DRAWN	PH	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D3793	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.		WEARSHOE	NTS
DATE	08.05.14	<small>COPYRIGHT © 2008 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	

8 7 6 5 4 3 2 1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries